What is claimed is:

1. An instrument for delivering energy to tissue comprising a working surface at least in part of a three-dimensional photonic lattice.

2. An instrument as in claim 1 wherein the photonic lattice is of a refractory material.

4. An instrument as in claim 1 wherein at least surface portions of the photonic lattice are of an electrical insulator.

5. An instrument as in claim 1 wherein the photonic lattice defines an ordered periodic structure to provide a band gap.

6. An instrument as in claim 1 wherein the photonic lattice defines a disordered periodic structure for guiding photonic energy.

7. An instrument as in claim 2 wherein the photonic lattice defines lattice dimensions for modifying thermal radiation from the working surface.

8. An instrument as in claim 2 wherein the photonic lattice comprises a heating element.

9. An instrument as in claim 1 wherein the photonic lattice defines a plurality of interior spatial regions for acting as diffraction centers for energy particles.

10. An instrument as in claim 9 wherein the spatial regions have ordered uniform dimensions.

11. An instrument as in claim 9 wherein the spatial regions have non-uniform dimensions.

12. An electrosurgical method for applying energy to tissue comprising the steps of:

(a) providing an instrument working surface of a photonic lattice that defines a plurality of spatial regions therein that act as diffraction centers for energy particles; and

(b) causing propagation and controlled diffraction of the energy particles about said spatial regions of the lattice and its working surface to apply energy to proximate tissue.

13. The method as in claim 12 wherein step (b) diffracts energy particles selected from the class consisting of electromagnetic waves, light particles, electrons, ions, microwaves and magnetic waves.

14. The method as in claim 12 wherein step (b) includes the contemporaneous step of heating the photonic lattice.

15. The method as in claim 12 wherein step (b) modifies emissions from a non-preferred mode to a preferred mode.

16. The method as in claim 12 wherein step (b) modifies emissions from a longer wavelength to a shorter wavelength.

17. The method as in claim 12 wherein step (b) includes the contemporaneous step of coupling Rf energy to the energy particles.

18. An instrument for delivering energy to tissue comprising a working surface at least in part of a lattice of a refractory material.

19. An instrument as in claim 18 wherein the lattice defines a 2D or 3D ordered lattice dimensional constant.

20. An instrument as in claim 19 wherein the dimensional constant is less than 10 microns.

21. An instrument as in claim 19 wherein the dimensional constant is less than 5 microns.

22. An instrument as in claim 18 wherein the lattice defines a spatial region that exceeds about 40% of the lattice volume.

23. An instrument as in claim 18 wherein the lattice defines a complete band gap at a selected operative temperature range.

24. An instrument as in claim 23 wherein the band gap is within the infrared band.